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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/805,362 | 03/14/2001 | Chan-Kyu Koo | Q62783 | 6724 |

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EXAMINER

COLLINS, SCOTT M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 09/805,362 | Applicant(s) KOO, CHAN-KYU | |
| | Examiner Scott M. Collins | Art Unit 2145 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24, 27-40 and 43-53 is/are rejected.
- 7) ☒ Claim(s) 25, 26, 41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>05/03/2005</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-53 examined.
2. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment on 01/24/2005.

Response to Arguments

3. Applicant's arguments filed 01/24/2005 have been fully considered but they are not persuasive. Applicant's arguments center around the conversion or translation of IP and port information based on assigned ID and port number. This process is fundamental to Network Address Translation which is a well-known concept that is fundamental to the Borella invention. In Network Address Translation, one server computer is responsible for routing the network requests of many computers and "masking" them all as if they were coming from the server computer (note: a "server" computer is any computer that serves and responds to requests). Thus, every requesting computer's IP and port information is converted using an assigned ID and port number in order to be masked as the server computer.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Borella et al., U.S. Patent Number 6,731,642 (herein referred to as Borella).

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6. Referring to claim 1, Borella has taught a system for multi-telecommunication over a local IP network, comprising:

- a. an IP network and a local IP network (Borella figure 1, networks 14 and 16 on either side network 12; and column 4, lines 15-22);
- b. a plurality of terminals connected to the local IP network, for conducting a call over the local IP network (Borella column 5, lines 21-25, 45-48);
- c. a home gateway connected to the IP network and the local IP network, for interfacing between the IP network and the plurality of terminals (Borella figure 1, gatekeepers 30 and 32), assigning an ID and a port to each terminal to differentiate terminals sharing one IP address in processing an incoming call and an outgoing call (Borella column 4, lines 24-32), and converting IP and port information in a header and payload of a received or transmitted packet according to an assigned ID and port number (Borella column 2; column 4, lines 52-67); and
- d. a gatekeeper connected to the IP network, for performing registration and call connection admission and managing a state of the IP network (Borella figure 1, gatekeepers 30 and 32; column 6, lines 38-60).

7. Referring to claims 2, 17, and 33, Borella has taught the system wherein the plurality of terminals connected to the local IP network are for conducting voice or video calls over the local IP network (Borella column 5, lines 21-25, 45-48).

8. Referring to claim 3, Borella has taught the system wherein the home gateway includes memory for storing the IDs and port numbers to process calls incoming and outgoing from and to the local IP network (Borella column 6, lines 38-47).

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9. Referring to claims 4 and 5, Borella has taught the system wherein the home gateway operates by converting TCP/UDP, IP, and MAC packets in the header and payload in order to connect to the local IP network (Borella column 4, lines 15-22 where every network device has a MAC address and TCP/IP is the protocol of the Internet.).

10. Referring to claims 6 and 53, Borella has taught a method of initiating a call for multi-telecommunication over a local IP network, comprising the steps of:

- a. assigning a port to a first terminal when said first terminal requests a call initiation, and storing information of the terminal (Borella column 4, lines 24-32);
- b. converting a transmission packet according to the stored information and transmitting the converted transmission packet (Borella column 4, lines 52-67); and
- c. converting a received packet when the packet corresponding to the stored information is received, converting the received packet according to the stored information, and transmitting the converted packet to said first terminal (Borella column 4, lines 52-67).

11. Referring to claims 7 and 30, Borella has taught the method wherein IP and port information of the terminal is stored in the header and payload of the packet, and changed in the packet conversion (Borella column 4, lines 52-67).

12. Referring to claims 8-10, Borella has taught the method further comprising the steps of:

- a. searching for a gatekeeper using a multicast address by the local IP network upon request of the call initiation (Borella column 8, lines 16-23);
- b. registering said first terminal that requests the call initiation in the gatekeeper according to an IP address assigned to the local IP network and a port number assigned to

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said first terminal to differentiate said first terminal from the other terminals sharing the IP address, when the gatekeeper responds (Borella figure 2; column 7, lines 14-22); and

c. receiving a registration confirmation from the gatekeeper (Borella column 7, lines 50-55).

13. Referring to claims 11-15 and 31, Borella has taught the method further comprising the steps of:

a. requesting the call initiation by said first terminal when the registration is completed (Borella figure 3);

b. admitting call connection according to a state of a second terminal (Borella figure 3);

c. wherein the gatekeeper receives the request and admits the call connection (Borella figure 3);

d. requesting call connection by transmitting the IP address and port number of said first terminal to said second terminal when the call connection is admitted and vice versa from the second terminal to the first terminal (Borella figure 3).

14. Referring to claims 16 and 32, Borella has taught the method further comprising establishing channels for real-time transmission between said first terminal and said second terminal by opening channels according to the exchanged IP and port information and exchanging messages (Borella figure 3, connections 110, 112, and 114; column 9, line 52 – column 10, line 12).

15. Referring to claims 18-19, 21, 34-35, and 37, Borella has taught the method wherein the ID of the terminal is an internal IP address assigned by the local IP network (Borella column 4,

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lines 24-32) and wherein a plurality of terminals connected to the local IP network are differentiated by different TCP and UDP ports (Borella column 4, lines 52-67).

16. Claims 20 and 36 do not recite limitations above the claimed invention set forth in claims 11-17 and are therefore rejected for the same reasons set forth in the rejection of claims 11-17 above.

17. Referring to claims 22, 23, 38, and 39, Borella has taught the method wherein the local IP network includes a plurality of terminals, including said first terminal, each of said plurality of terminals having respective IP information and port information associated therewith, wherein said IP information and said port information are used for packet conversion (Borella column 4, lines 52-67), wherein a memory map for storing said IP information and said port information is constructed, said memory map indicating at least one of said plurality of terminals corresponding to a respective IP address, a respective internal IP address for allowing a local network to identify each terminal, and a respective port number (Borella column 6, lines 38-47).

18. Referring to claims 24 and 40, Borella has taught the method wherein one of the respective IP addresses is shared by more than one of said plurality of terminals (Borella column 4, lines 24-32).

19. Claims 28, 29, 44-53 do not recite limitations above the claimed invention set forth in claims 6, 9, 11-19 and are therefore rejected for the same reasons set forth in the rejection of claims 6, 9, 11-19 above.

Allowable Subject Matter

20. Claims 25-26 and 41-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

21. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

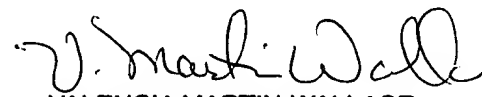
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Collins whose telephone number is 571.272.3934. The examiner can normally be reached on Mon.-Fri. 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571.272.6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

smc
April 27, 2005


VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER